

Cellular Immunology

AN INTERNATIONAL JOURNAL

EDITOR-IN-CHIEF: H. Sherwood Lawrence

Volume 144, 1992



ACADEMIC PRESS, INC.

Harcourt Brace Jovanovich, Publishers

San Diego New York Boston
London Sydney Tokyo Toronto

Copyright © 1992 by Academic Press, Inc.
All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (27 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1992 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0008-8749/92 \$5.00

MADE IN THE UNITED STATES OF AMERICA

This journal is printed on acid-free paper.



Contents of Volume 144

NUMBER 1, OCTOBER 1, 1992

SUMIKO IHO, HUNGYI SHAU, AND SIDNEY H. GOLUB. IL-6 Enhances the Cytotoxic Activity of Thymocyte-Derived CD56 ⁺ Cells	1
RAJABATHER KRISHNARAJ. Negative Modulation of Human NK Cell Activity by Purinoceptors. 2. Age-Associated, Gender-Specific Partial Loss of Sensitivity to ATP	11
RUDOLF P. WUTHRICH. With the technical assistance of Padmini Sekar. Monoclonal Antibodies Targeting Murine LFA-1 Induce LFA-1/ICAM-1-Independent Homotypic Lymphocyte Aggregation	22
SCOTT F. PURVIS, DANIEL L. GEORGES, THOMAS M. WILLIAMS, AND MICHAEL M. LEDERMAN. Suppression of Interleukin-2 and Interleukin-2 Receptor Expression in Jurkat Cells Stably Expressing the Human Immunodeficiency Virus Tat Protein	32
TAI MURYOI, JANINE ANDRÉ-SCHWARTZ, YUKIKO SAITOH, CHRISTINA DAIAN, BRENDA HALL, ALEXANDRA DIMITRIU-BONA, ROBERT S. SCHWARTZ, CONSTANTIN A. BONA, AND KUPPU-SWAMY N. KASTURI. Self-Reactive Repertoire of Tight Skin (TSK/+) Mouse: Immunochemical and Molecular Characterization of Anti-cellular Autoantibodies	43
BRUCE S. EDWARDS, HECTOR A. NOLLA, AND R. R. HOFFMAN. Resolution of Adhesion- and Activation-Associated Components of Monoclonal Antibody-Dependent Human NK Cell-Mediated Cytotoxicity	55
ANITA S.-F. CHONG, IAN A. BOUSSY, LLOYD H. GRAF, AND PHILIP SCUDERI. Stimulation of IFN- γ , TNF- α , and TNF- β Secretion in IL-2-Activated T Cells: Costimulatory Roles for LFA-1, LFA-2, CD44, and CD45 Molecules	69
WESLEY F. OBRITSCH, HIDETOSHI KAWASHIMA, ANTHONY EVANGELISTA, JEFFREY M. KETCHAM, EDWARD J. HOLLAND, AND DALE S. GREGERSON. Inhibition of <i>in Vitro</i> T Cell Activation by Corneal Endothelial Cells	80
WŁODZIMIERZ PTAK, KRZYSZTOF BRYNIARSKI, MARIAN SZCZEPANIK, MARIA PTAK, AND AGNIESZKA POLEWSKA. Regulation of Contact Sensitivity Reaction: Contrasuppressor T Cells and Contrasuppressor Factor Downregulate Efferent T Suppressor Cells	95
CHRISTINE BRUNAUD, EDGARDO DELFINO CAROSELLA, AND BERNARD CHARPENTIER. T Hybridoma α/β Gene Transfected in a Murine T Cell Hybridoma: Role of CD4 Molecule <i>in Vitro</i> and <i>in Vivo</i> —Engraftment in SCID Mice Induces T Cell Maturation	105
LAVEEZA BHATTI, KRISTIN BEHLE, AND RONALD H. STEVENS. Inhibition of B Cell Proliferation by Antisense DNA to Both α and β Forms of Fc ϵ R II	117
SHU-MEI LIANG, NANCY LEE, YANG YANG CHEN, AND CHI-MING LIANG. Effects of Glutathione on the Synthesis and Turnover of Interleukin-2 Receptors	131
MOHAMED EMARA AND FRED SANFILIPPO. The Inhibition of T Cell Proliferative Responses by Crosslinking CD7 and IgM-Fc Receptors	143
HARRY M. LANDER, DANIEL M. LEVINE, AND ABRAHAM NOVOGRODSKY. Agonistic Effects of Tyrphostins on Human Peripheral Mononuclear Cells	155
ANDREW SAXON, NEIL SIDELL, AND KE ZHANG. B Cells from Subjects with CVI Can Be Driven to Ig Production in Response to CD40 Stimulation	169
SHMUEL MIRON, RAMI HERSHKOVIZ, IRIS TIROSH, YORAM SHECHTER, AVNER YAYUN, AND OFER LIDER. Involvement of a Protein Kinase C and Protein Phosphatases in Adhesion of CD4 ⁺ T Cells to and Detachment from Extracellular Matrix Proteins	182
HANS CARLSTEN, NIKLAS NILSSON, ROLAND JONSSON, KERSTIN BACKMAN, RIKARD HOLMDAHL, AND ANDRZEJ TARKOWSKI. Estrogen Accelerates Immune Complex Glomerulonephritis but Ameliorates T Cell-Mediated Vasculitis and Sialadenitis in Autoimmune MRL lpr/lpr Mice	190
VAN TSAI, GARY S. FIRESTEIN, WILLIAM AREND, AND NATHAN J. ZVAIFLER. Cytokine-Induced Differentiation of Cultured Nonadherent Macrophages	203
LEE-WAY JIN, KAYO INABA, AND TSUNAO SAITOH. The Involvement of Protein Kinase C in Activation-Induced Cell Death in T-Cell Hybridoma	217
SHORT COMMUNICATIONS	
E. M. HADDEN, P. MALEC, M. SOSA, AND J. W. HADDEN. Mixed Interleukins and Thymosin Fraction V Synergistically Induce T Lymphocyte Development in Hydrocortisone-Treated Aged Mice	228

G. A. WAANDERS, P. HUGO, AND R. L. BOYD. Treatment of Fetal Thymic Organ Culture with IL-1 Leads to Accelerated Differentiation of Subsets of CD4 ⁺ CD8 ⁻ Cells	237
PAPERS TO APPEAR IN FORTHCOMING ISSUES	246
NUMBER 2, OCTOBER 15, 1992	
H. RENZ, A. HENKE, P. HOFMANN, L. J. WOLFF, A. SCHMIDT, J. RÜSCHOFF, AND D. GEMSA. Sensitization of Rat Alveolar Macrophages to Enhanced TNF- α Release by <i>in Vivo</i> Treatment with Dexamethasone	249
LUIZ E. BERMUDEZ AND LOWELL S. YOUNG. Tumor Necrosis Factor α Stimulates Mycobactericidal/ Mycobacteriostatic Activity in Human Macrophages by a Protein Kinase C-Independent Pathway	258
ROB J. VANDEBRIEL, DICK F. VAN WICHEN, MIREILLE N. M. VAN POPPEL, MARGEE ROBERTUS-TEUNISSEN, DETLEF ZIMMERMANN, HENDRIK C. KORSWAGEN, NANCY E. M. VAN EMMERIK, AND ROEL A. DE WEGER. Specific T-Cell Factor Production and Lymphocytes in the Direct Surroundings of a Subcutaneous Allogeneic Tumor	269
CECILIA M. WHITACRE AND MARTHA K. CATHCART. Oxygen Free Radical Generation and Regulation of Proliferative Activity of Human Mononuclear Cells Responding to Different Mitogens ..	287
LISA A. CAVACINI, JILL GILES-KOMAR, MARGARET KENNEL, AND ADRIENNE QUINN. Effect of Immunosuppressive Therapy on Cytolytic Activity of Immunodeficient Mice: Implications for Xenogeneic Transplantation	296
ANNETTE J. SCHLUETER, DIEGO SEGRE, MARK S. KUHLENSCHMIDT, AND MARIANGELA SEGRE. Behavior of the Idiotypic Network in Conventional Immune Responses. I. Kinetics of Idiotypic and Anti-idiotypic Antibodies Following Immunization with T-Independent and T-Dependent Antigens	311
MARIANGELA SEGRE, RONALD M. WEIGEL, ANNETTE J. SCHLUETER, AND DIEGO SEGRE. Behavior of the Idiotypic Network in Conventional Immune Responses. II. Affinity and Heterogeneity of Idiotypic and Anti-idiotypic Antibodies Following Immunization with T-Independent and T-Dependent Antigens	324
CLAUDIO NICOLETTI AND JAN CERNY. A Study of Autologous Anti-idiotypic Antibody-Forming Cells in Mice of Different Ages and Genetic Backgrounds	332
SUBHASHIS BANERJEE, CAROLYN WEBBER, AND A. ROBIN POOLE. The Induction of Arthritis in Mice by the Cartilage Proteoglycan Aggrecan: Roles of CD4 ⁺ and CD8 ⁺ T Cells	347
YOSHIRO KOBAYASHI, TAKASHI YOSHIKAWA, AND NAKO WATANABE. Tumor Cytostasis Mediated by LPS- or PSK-Activated Human Plastic-Adherent Peripheral Blood Mononuclear Cells ..	358
RICHARD G. COOK, BARBARA LEONE, JOSEPH W. LEONE, SUZANNE M. WIDACKI, AND PETER J. ZAVELL. Characterization of T Cell Proliferative Responses Induced by Anti-Qa-2 Monoclonal Antibodies	367
SHIN YOSHINO AND JUNKO YOSHINO. Suppression of Chronic Antigen-Induced Arthritis in Rats by a Monoclonal Antibody against the T Cell Receptor $\alpha\beta$	382
HANAN GUR, MARY C. WACHOLTZ, WEN-RONG LIE, PETER E. LIPSKY, AND THOMAS D. GEPPERT. Comparison of the Capacity of Murine and Human Class I MHC Molecules to Stimulate T Cell Activation	392
S. NIRANJAN GOUD, ALAN M. KAPLAN, AND BONDADA SUBBARAO. Priming of Peripheral Lymph Node B Cells with TNP-Ficoll: Role of Lymphokines in B Cell Differentiation	407
A. WARMOLD L. VAN DEN WALL BAKE, KELLEY P. BLACK, ROSE KULHAVY, JIRI MESTECKY, AND SUSAN JACKSON. Transforming Growth Factor- β Inhibits the Production of IgG, IgM, and IgA in Human Lymphocyte Cultures	417
HAJIME KIMATA, AKIRA YOSHIDA, CHIIHIRO ISHIOKA, AND HARUKI MIKAWA. Differential Effect of Vasoactive Intestinal Peptide, Somatostatin, and Substance P on Human IgE and IgG Subclass Production	429
DEBASIS CHAKRABARTI AND SWAPAN K. GHOSH. Induction of Syngeneic Cytotoxic T Lymphocytes against a B Cell Tumor. II. Characterization of Anti-idiotypic CTL Lines and Clones	443
DEBASIS CHAKRABARTI AND SWAPAN K. GHOSH. Induction of Syngeneic Cytotoxic T Lymphocytes against a B Cell Tumor. III. MHC Class I-Restricted CTL Recognizes the Processed Form(s) of Idiotype	455

LETTER TO THE EDITOR
MAURICE LANDY AND C. DAVID PAUZA. Rethinking the AIDS Conundrum 465

ANNOUNCEMENT 467

PAPERS TO APPEAR IN FORTHCOMING ISSUES 468

AUTHOR INDEX FOR VOLUME 144 470

NOTICE

The Subject Index for Volume 144 will appear in the December 1992 issue as part of a cumulative index for the year 1992.



Digitized by the Internet Archive
in 2023 with funding from
Kahle/Austin Foundation

Cellular Immunology will provide an international medium devoted exclusively to publication of original investigations concerned with the immunological activities of cells in experimental or clinical situations. The scope of the journal will encompass the broad area of *in vitro* and *in vivo* studies of cellular immune responses. These include, for example, delayed type hypersensitivity or cellular immunity; immunologic surveillance and tumor immunity; transplantation immunology; autoimmunity, resistance to intracellular microbial and viral infection; immunologic deficiency states and their reconstitution; antigen receptor sites; thymus and lymphocyte immunobiology, etc. The chief criteria for acceptance of papers submitted for publication are the originality, clarity, and quality of the work reported. Manuscripts are accepted for review with the understanding that the same work has not been and will not be nor is presently submitted elsewhere, and that its submission for publication has been approved by all of the authors and by the institution where the work was carried out; further, that any person cited as a source of personal communications has approved such citation. Written authorization may be required at the Editor's discretion. Articles and any other material published in *Cellular Immunology* represent the opinions of the author(s) and should not be construed to reflect the opinions of the Editor(s) and the Publisher.

Authors submitting a manuscript do so on the understanding that if it is accepted for publication, copyright in the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the Publisher. The Publisher will not refuse any reasonable request by the author for permission to reproduce any of his or her contributions to the journal.

All manuscripts should be submitted to the Editor: Dr. H. Sherwood Lawrence, Infectious Disease and Immunology Division, Department of Medicine, New York University Medical Center, 550 First Avenue, New York, New York 10016.

Form. Manuscripts should be typewritten and double-spaced throughout (including tables, footnotes, references, and figure captions); the original typescript should be prepared on one side of a good grade of $8\frac{1}{2} \times 11$ -inch white paper, with 1-inch margins on all sides. Mimeographed or duplicated manuscripts will be accepted if they are indistinguishable from good typed copies. Submit three complete copies in order to expedite processing of the manuscript. Each copy must include all figures and tables.

Number the pages consecutively. Page 1 should contain the article title, author(s), and affiliation(s); at the bottom of the page type a short running head title not exceeding 45 characters (including spaces), and the name and complete mailing address (including zip code) of the person to whom proofs should be sent. Page 2 should contain a short abstract, approximately 100 to 150 words in length.

Headings. The organization of the paper must be clearly indicated by appropriate headings and sub-headings.

Abbreviations. Do not use final periods after abbreviations of measure (cm, sec, kg, etc.) in text or in tables, except for "in." (inch). Use the American Chemical Society *Style Guide*, 1986, as a reference.

Symbols. Underline letters that represent mathematical symbols; these will be set in *italic* type.

Equations. Number equations consecutively, with the number placed in brackets to the extreme right of the equation. Refer to equations as Eq. [3] or simply [3], except at the beginning of a sentence, when the word Equation should be spelled out. Punctuate equations to conform to their place in the syntax of the sentence.

Footnotes. Use only when absolutely necessary, in which case type the footnotes consecutively, double-spaced, on a separate sheet of paper in the order of their appearance in the text. Use superscript Arabic numbers ^{1,2}, etc. in the text citations and in the list.

Tables. Number tables consecutively with Arabic numerals in order of their appearance in the text. Type each table, double-spaced throughout on a separate sheet; avoid vertical rules. Supply a short descriptive title below the table number. Type table footnotes, lettered ^{a,b}, etc. at the end of the table.

Figures. Number figures consecutively in the text with Arabic numerals. Type legends double-spaced together on a separate sheet. Original illustrations no larger than $8\frac{1}{2} \times 11$ inches are preferred. All illustrations should be in finished form suitable for reproduction. They should be planned to fit the proportion of the printed page (5×8 in.). Lettering on drawings should be of professional quality or generated by *high-resolution* computer graphics and should be large enough (10–12 points) to take a reduction of 50–60%. Drawings should be made with black India ink on tracing linen, smooth surface white paper, or Bristol board. Alternatively, *high-quality* computer graphics may be acceptable. Graphs should be plotted with black India ink on light blue or white coordinate paper with coordinates properly labeled; grid lines that are to show should be inked in black. Photographs should be submitted as glossy prints (5×7 or 8×10 inches) and not marred by staples, paper clips, or pencil marks. Groupings of photographs should be indicated; if mounting is necessary, use 10- to 12-point *flexible* board.

Illustrations in color can be accepted only if the authors defray the cost.

References. These should be cited in the text by a number in parentheses and listed at the end of the paper in numerical order. Note the following style for book and journal citations:

1. Leopardi, E., and Rosenau, W., *Cell. Immunol.* **83**, 73, 1984.
2. Buckley, R. H., In "Monoclonal Antibodies: Probes for the Study of Autoimmunity and Immuno-deficiency" (B. F. Haynes and G. S. Eisenbarth, Eds.), pp. 83–95. Academic Press, Orlando, FL, 1983.
3. Katz, D. H., "Lymphocyte Differentiation, Recognition, and Regulation." Academic Press, New York, 1977.

Abbreviations of journal names should follow the style of *Chemical Abstracts Service Source Index*, 1985. Unpublished observations and personal communications should be cited in the text as such, and should not be included in the reference list.

Letters to the Editor relating to articles appearing in *Cellular Immunology* are welcome and will be published, if found suitable, as limited space permits. All letters must be typewritten in the format of other material submitted for publication and limited in length to two typewritten pages.

Author's alterations in excess of 10% of the cost of composition will be charged to the author.

Reprints. 50 reprints will be supplied free of charge. Additional reprints can be ordered on the form accompanying the proof.

Personal computer disks. Manuscripts may be submitted to *Cellular Immunology* on personal computer disks after the manuscript has been accepted and after all revisions have been incorporated onto the disk. Label the disk with the type of computer used, the type of software and the version number, and the disk format. All tabular material will be typeset conventionally. Art must be prepared as camera-ready copy; see the section on Figures earlier in this Information for Authors.

A hard copy printout of the manuscript that exactly matches the disk file must be supplied. Academic Press will not accept disks without accompanying printouts of all files on the disk. File names must clearly indicate the content of each file. The manuscript will be edited according to the style of the journal, and the proofs must be read carefully by the author. Disks that are not translatable or economical to process will not be used. The publisher reserves the right not to use the disk.

For further information on preparing disks for typesetting conversion, please contact the publisher (Editorial Supervisor, Journal Division, Academic Press, Inc., 1250 Sixth Avenue, San Diego, California 92101; telephone: (619) 699-6415; fax: (619) 699-6800).